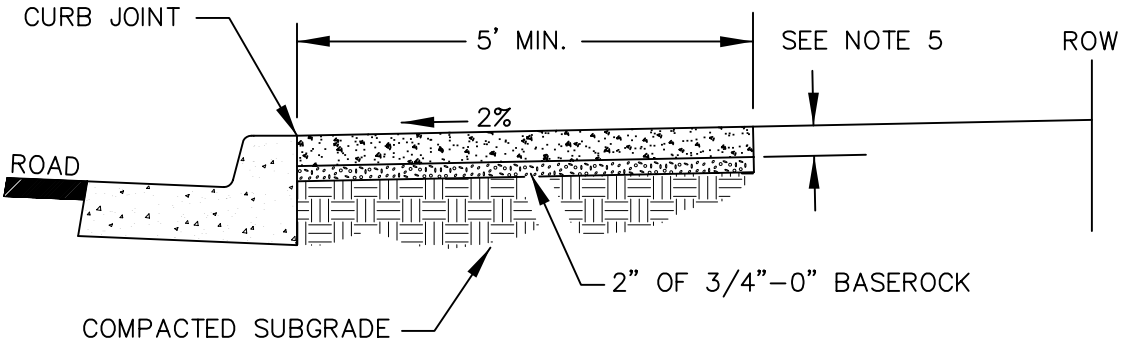
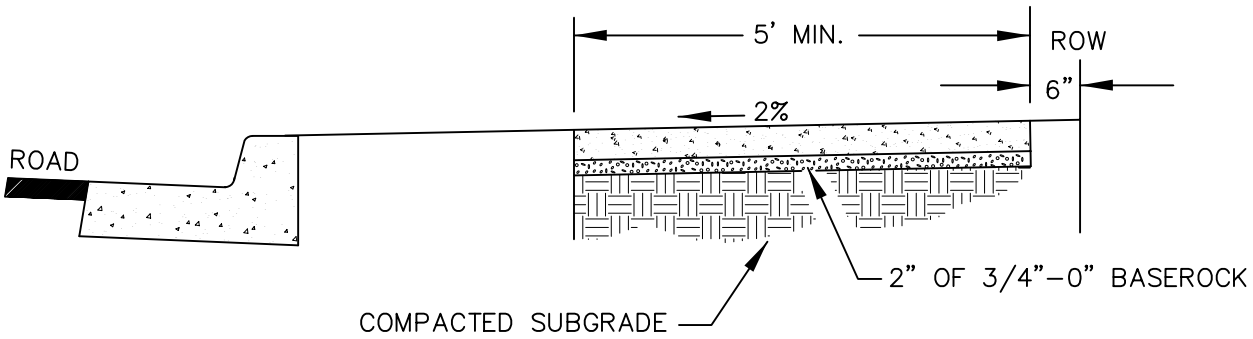


SIDEWALK ADJACENT TO CURB



SIDEWALK AWAY FROM CURB

NOTES:

1. CONCRETE SHALL BE 3000 P.S.I. AFTER 28 DAYS, 6 SACK MIX, SLUMP RANGE OF 1-1/2" TO 3".

2. PANELS TO BE 5 FEET LONG.

3. EXPANSION JOINTS TO BE PLACED AT SIDES OF DRIVEWAY APPROACHES, UTILITY VAULTS, WHEELCHAIR RAMPS, & AT SPACING NOT TO EXCEED 45 FEET.

4. FOR SIDEWALK ADJACENT TO THE CURB AND POURED AT THE SAME TIME AS THE CURB, THE JOINT BETWEEN THEM SHALL BE A TROWELED JOINT WITH A MIN. 1/2" RADIUS.

5. SIDEWALK SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES IF MOUNTABLE CURB IS USED OR IF SIDEWALK IS INTENDED AS PORTION OF DRIVEWAY. OTHERWISE SIDEWALK SHALL HAVE A MINIMUM THICKNESS OF 4 INCHES.

6. DRAIN BLOCKOUTS IN CURBS SHALL BE EXTENDED TO BACK OF SIDEWALK WITH 3" DIAMETER SCHEDULE 40 DWV (ABS OR PVC) PIPE AT 2% SLOPE. CONTRACTION JOINT TO BE PLACED OVER PIPE.

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13125 S.W. HALL BLVD.
TIGARD, OREGON 97223
VOICE: (503) 639-4171
FAX: (503) 684-7297

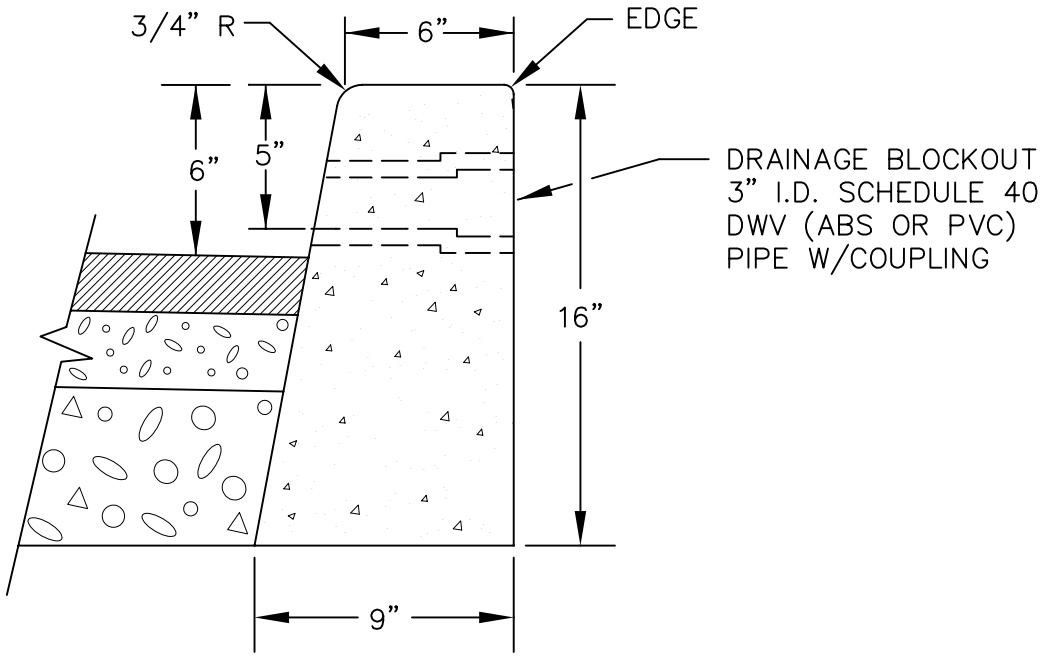
APPROVED BY:
AGUSTIN P. DUENAS
CITY ENGINEER

JULY 2001
APPROVAL DATE

CONCRETE SIDEWALK

NO SCALE

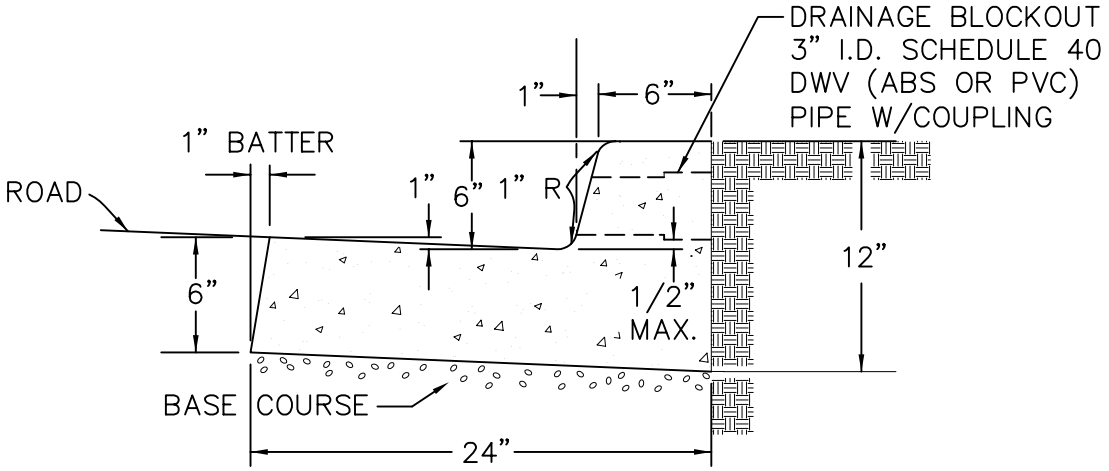
DWG. NO.
120



NOTES:

1. TRAVERSE EXPANSION JOINTS TO BE PROVIDED AT EACH POINT OF TANGENCY OF THE CURB & AT OTHER LOCATIONS AS REQUIRED TO LIMIT THE SPACING TO A MAXIMUM OF 20 FT.
2. TRAVERSE EXPANSION MATERIAL TO BE PRE-MOLDED NON-EXTRUDED MATERIAL WITH A MINUMUM THICKNESS OF 1/2".
3. TRAVERSE CONTRACTION JOINTS TO BE SPACED NOT MORE THAN 10 FEET APART WITH A DEPTH OF AT LEAST ONE FOURTH OF THE CROSS SECTIONAL AREA.
4. CONCRETE BREAKING STRENGTH TO BE 3000 PSI AFTER 28 DAYS.
5. DRAINAGE ACCESS THROUGH NEW CURBS SHALL BE PLACED A MIN. OF 2 FEET AND MAX. OF 3 FEET FROM PROPERTY LINES.

CITY OF TIGARD OREGON ENGINEERING DEPARTMENT 13125 S.W. HALL BLVD. TIGARD, OREGON 97223 VOICE: (503) 639-4171 FAX: (503) 684-7297	APPROVED BY: AGUSTIN P. DUENAS CITY ENGINEER JULY 2001 APPROVAL DATE	**STANDARD CURB**	NO SCALE DWG. NO. 125



1. FOR USE ALONG MEDIANS, GUTTERS MAY BE REDUCED WITH PRIOR APPROVAL FROM THE CITY ENGINEER.

2. CONCRETE TO HAVE A BREAKING STRENGTH OF 3000 P.S.I. AFTER 28 DAYS.

3. EXPANSION JOINTS:
   - A. TO BE PROVIDED:
     1) AT EACH POINT OF TANGENCY OF THE CURB.
     2) AT EACH COLD JOINT.
     3) AT EACH SIDE OF INLET STRUCTURES.
     4) AT EACH END OF DRIVEWAYS.
     5) AT LOCATIONS NECESSARY TO LIMIT SPACING TO 45 FEET.
   - B. MATERIAL TO BE PRE–MOLDED, ASPHALT IMPREGNATED, NON EXTRUDING, WITH A THICKNESS OF 1/2 INCH.

4. CONTRACTION JOINTS:
   - A. SPACING TO BE NOT MORE THAN 15 FEET.
   - B. THE DEPTH OF THE JOINT SHALL BE AT LEAST 1 1/2 INCHES.

5. BASE ROCK 2"–0 OR 3/4"–0, 95% COMPACTION. BASE ROCK SHALL BE TO SUBGRADE OF STREET STRUCTURE OR 4" IN DEPTH, WHICHEVER IS GREATER.

6. DRAINAGE BLOCKOUT – 3" DIAMETER PIPE:
   - A. 3" I.D. PIPE WITH COUPLING.
   - B. DRAINAGE ACCESS THROUGH EXISTING CURBS SHALL BE CORE DRILLED OR CURB SAW CUT VERTICALLY 18" EACH SIDE OF DRAIN AND REPOURED TO FULL DEPTH OF CURB.
   - C. DRAINAGE ACCESS THROUGH NEW CURBS SHALL BE PLACED A MINIMUM OF 2.0' AND A MAXIMUM OF 3.0' FROM PROPERTY LINES.

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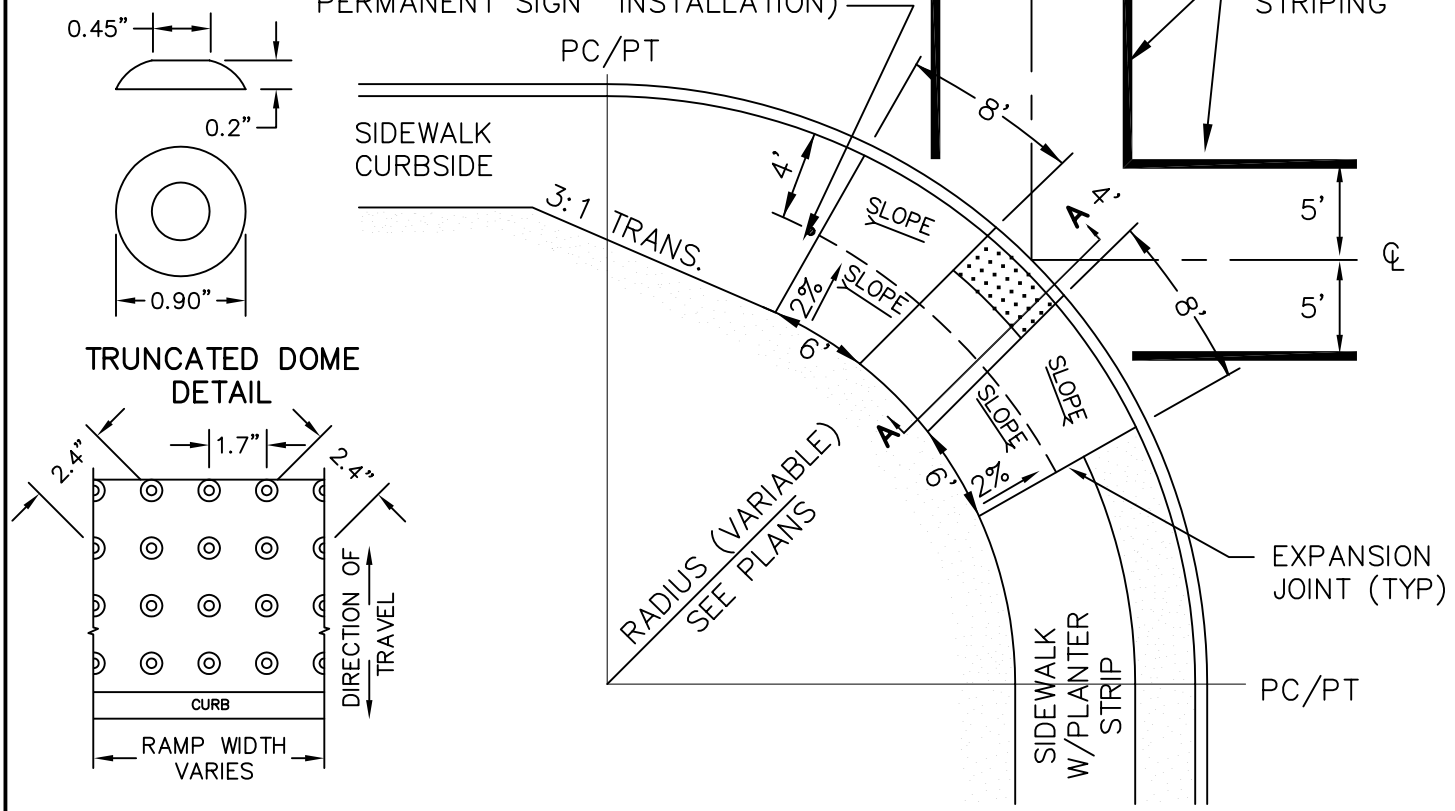
CITY ENGINEER

JULY 2001
APPROVAL DATE

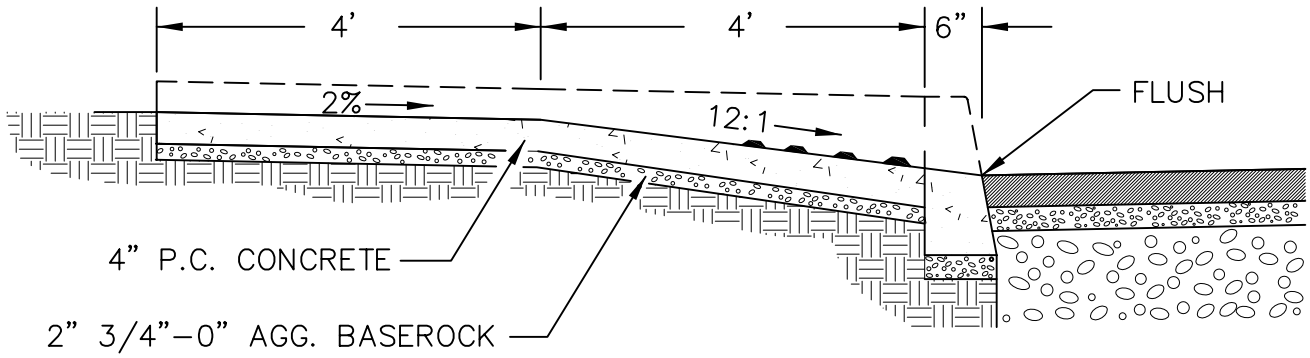
CURB & GUTTER

NO SCALE

DWG. NO.
126



PLAN VIEW



SECTION A–A

NOTES:

1. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.
2. CONTRACTION JOINTS SHALL BE SCRIBED 3/4" DEEP AND RAMP PANELS SHALL BE BE EDGED ON 4 SIDES.
3. EXPANSION JOINTS SHALL BE 1/2" ASPHALT IMPREGNATED MATERIAL OR EQUAL.
4. SURFACE SHALL HAVE A MEDIUM BROOM FINISH.
5. COLOR OF DOME AREA SHALL BE SAFETY YELLOW.

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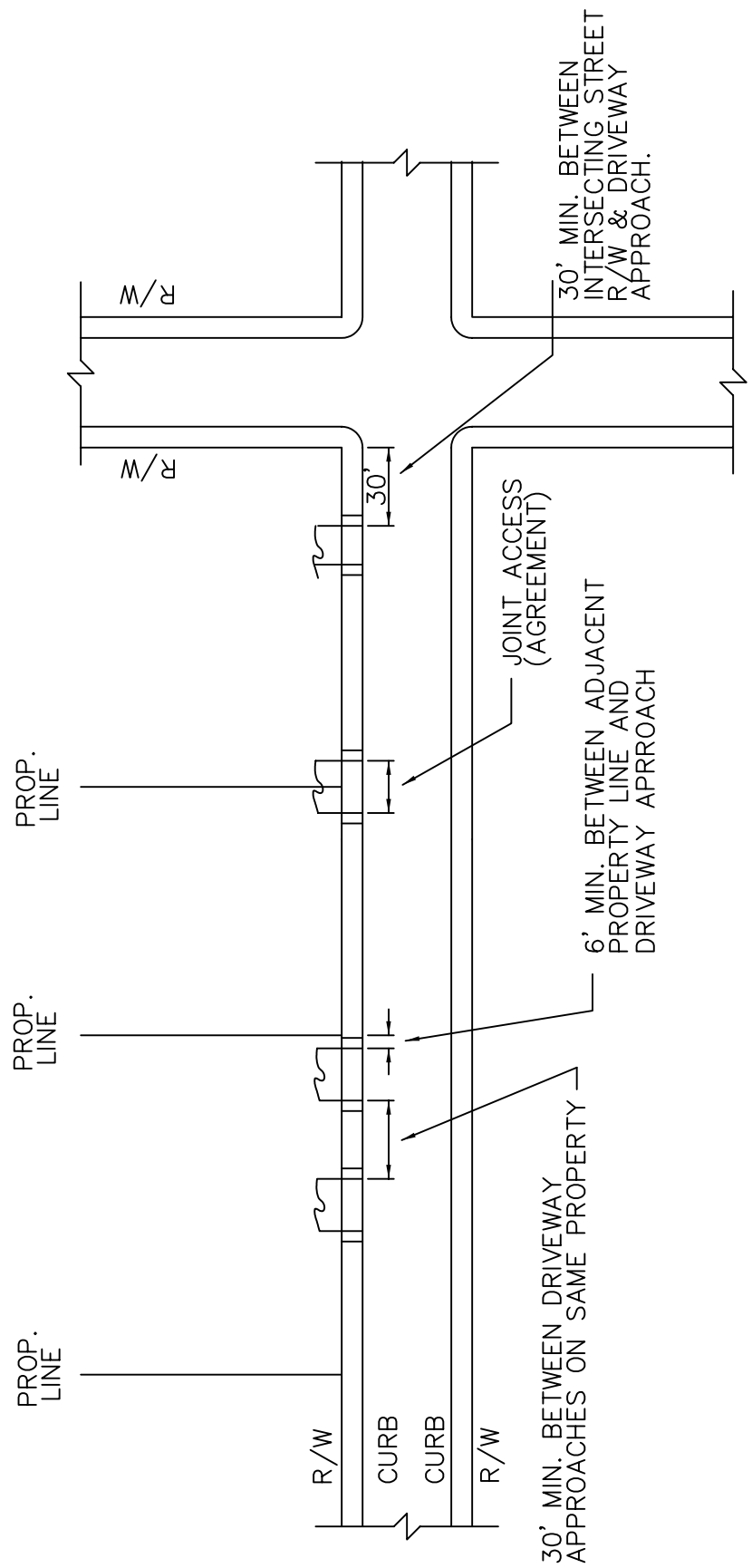
DATE	REVISION
3-10-03	ADD TRUNCATED DOME DETAIL
3-10-03	CONC STRENGTH 3000 TO 3300

WHEELCHAIR RAMP STANDARD CORNER

NO SCALE

DWG. NO. 128



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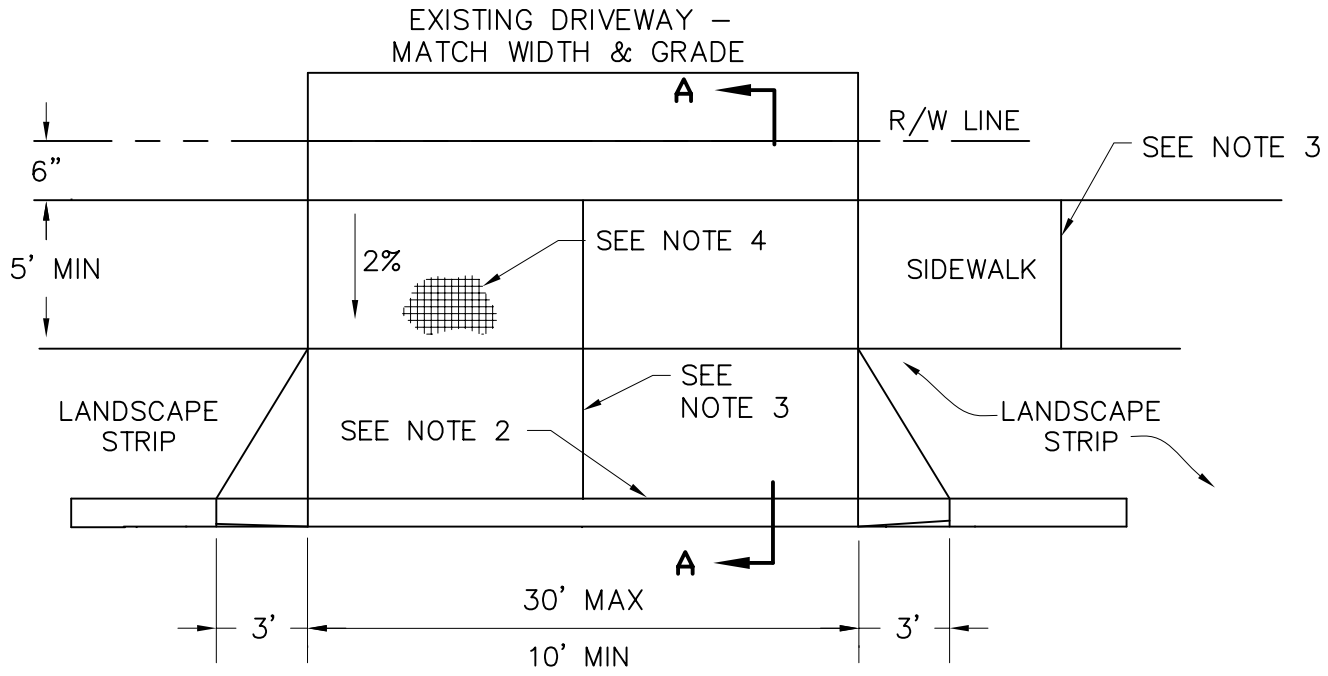
AGUSTIN P. DUENAS
CITY ENGINEER

MARCH 1998
APPROVAL DATE

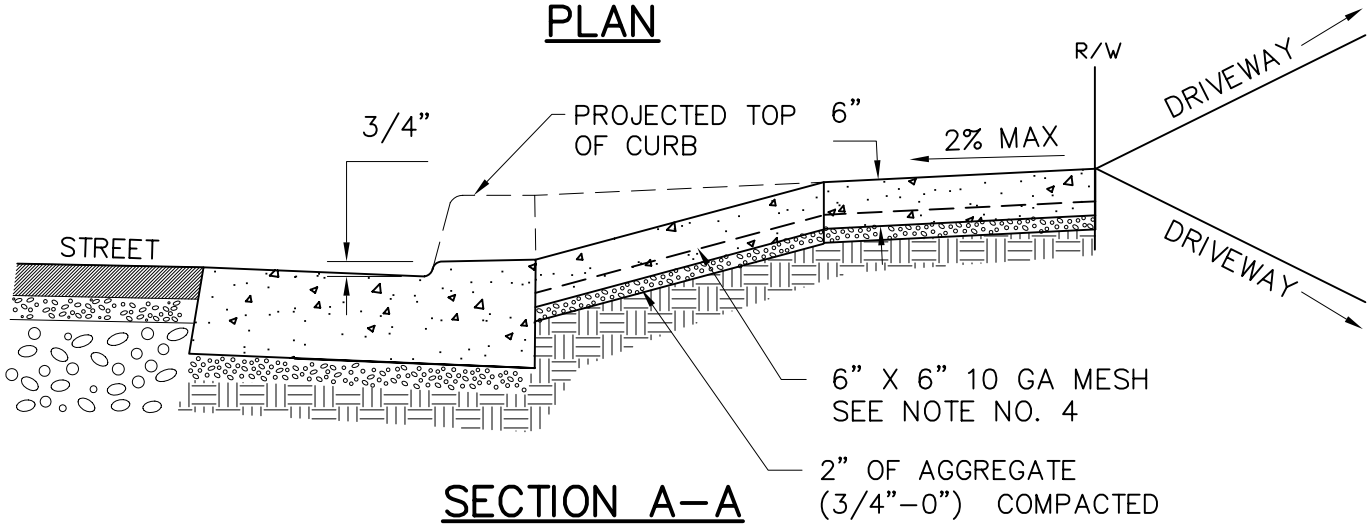
DRIVEWAY APPROACH LOCATIONS

NO SCALE

DWG. NO.
140



PLAN



SECTION A–A

NOTES:

1. CONCRETE COMPRESSIVE STRENGTH SHALL BE A MINUMUM OF 3300 PSI AFTER 28 DAYS.
2. CURB JOINT SHALL BE TROWELED WITH A MIN 1/2" RADIUS ALONG BACK OF CURB.
3. EXPANSION & CONTRACTION JOINTS SHALL BE 1/2" PREMOLDED ASPHALT IMPREGNATED MATERIAL OR EQUAL EXTENDING FROM SUBGRADE TO FINISH GRADE.
4. 6" X 6" 10 GA MESH REQUIRED FOR COMMERCIAL DRIVEWAYS ONLY.

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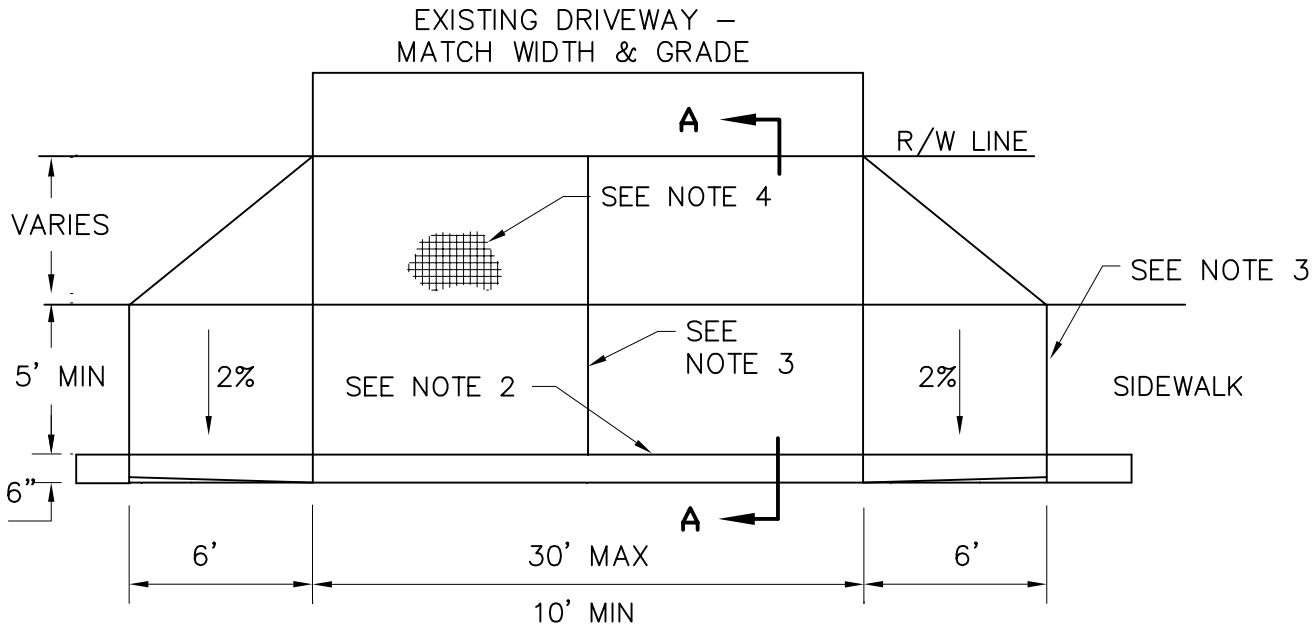
DATE	REVISION

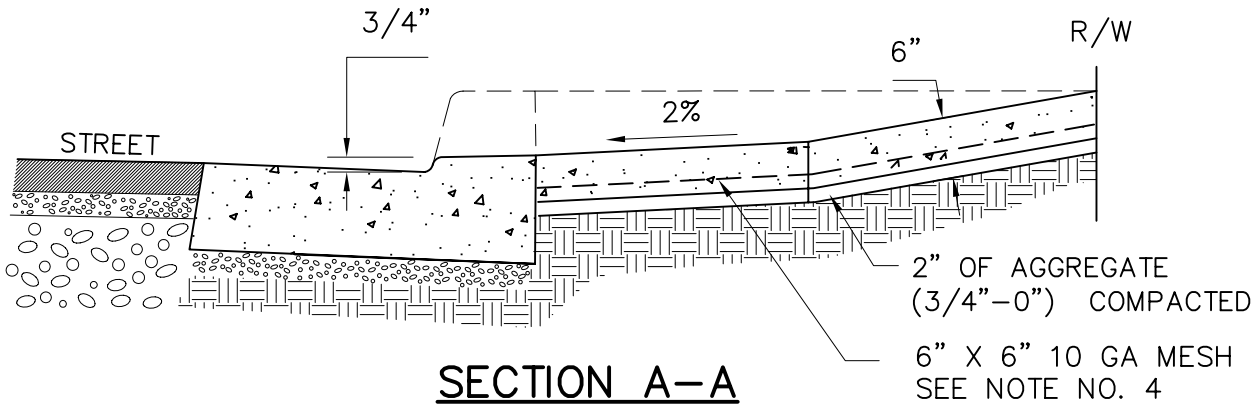
STANDARD DRIVEWAY w/LANDSCAPE STRIPS

NO SCALE

DWG. NO. 141



PLAN



SECTION A–A

NOTES:

1. CONCRETE COMPRESSIVE STRENGTH SHALL BE A MINUMUM OF 3300 PSI AFTER 28 DAYS.
2. CURB JOINT SHALL BE TROWELED WITH A MIN 1/2" RADIUS ALONG BACK OF CURB.
3. EXPANSION & CONTRACTION JOINTS SHALL BE 1/2" PREMOLDED ASPHALT IMPREGNATED MATERIAL OR EQUAL EXTENDING FROM SUBGRADE TO FINISH GRADE.
4. 6" X 6" 10 GA MESH REQUIRED FOR COMMERCIAL DRIVEWAYS ONLY.

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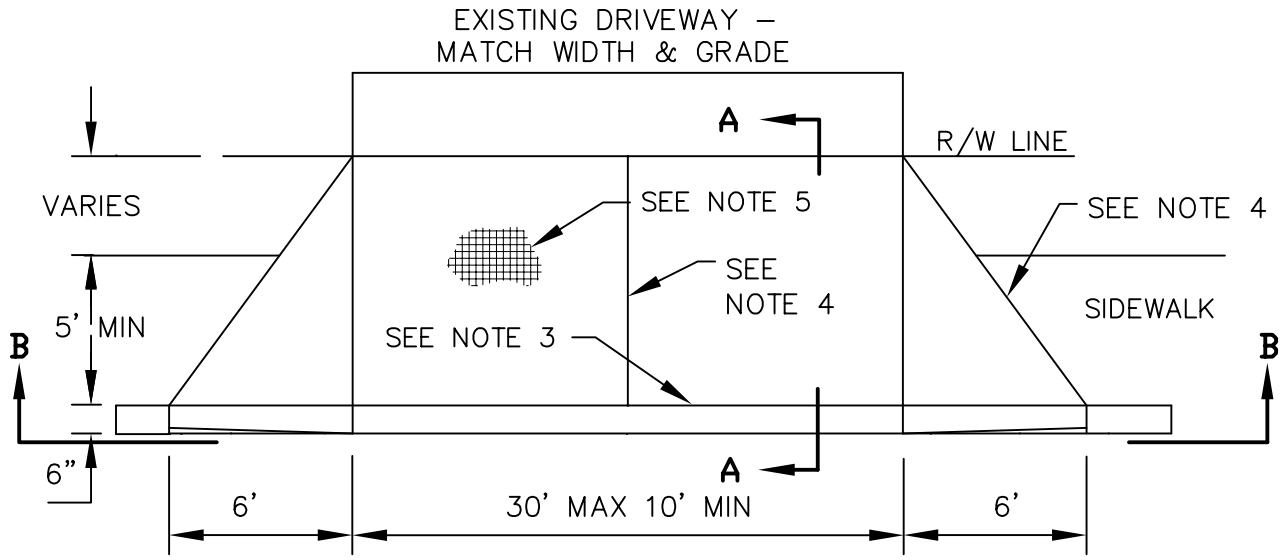
DATE	REVISION
03-10-03	CONC STRENGTH 3000 TO 3300

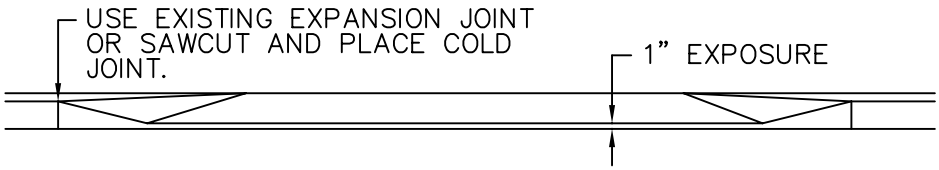
STANDARD DRIVEWAY w/CURB–TIGHT SIDEWALK

NO SCALE

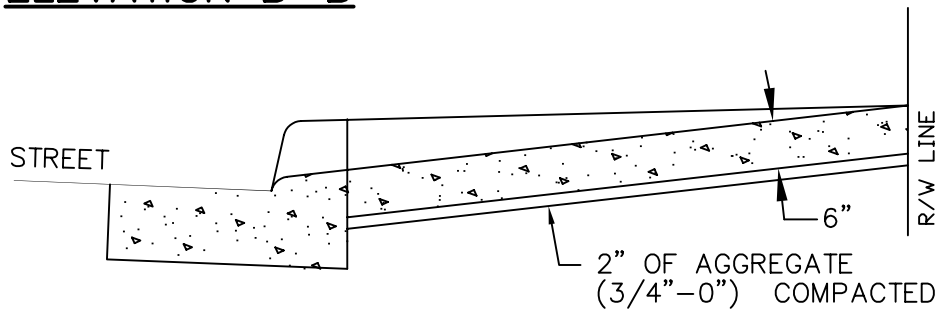
DWG. NO. 142



PLAN



ELEVATION B–B

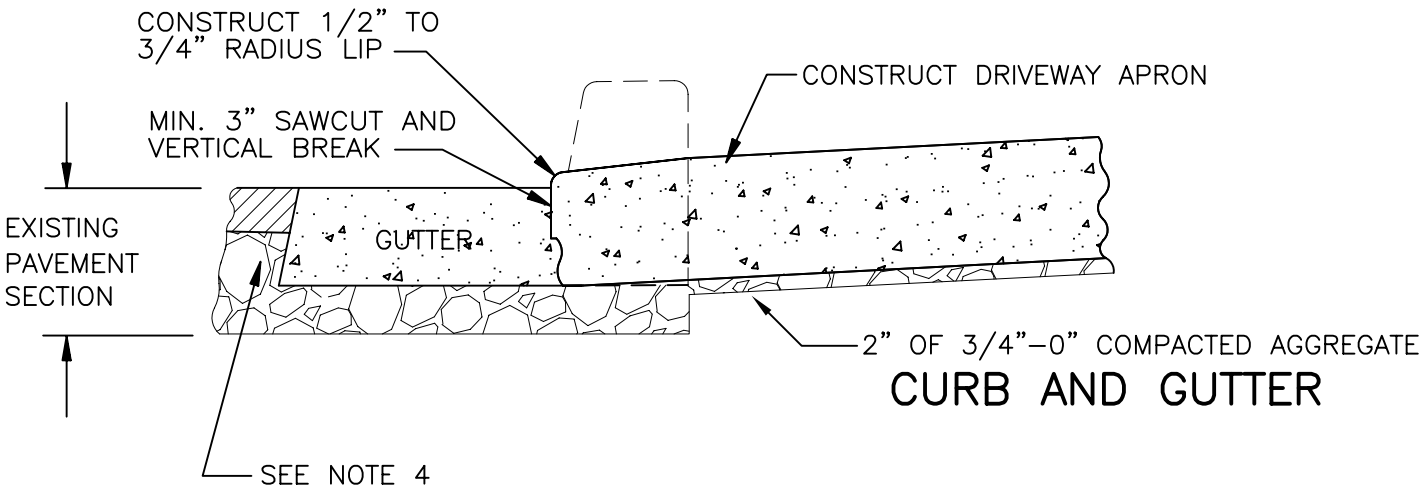


SECTION A–A

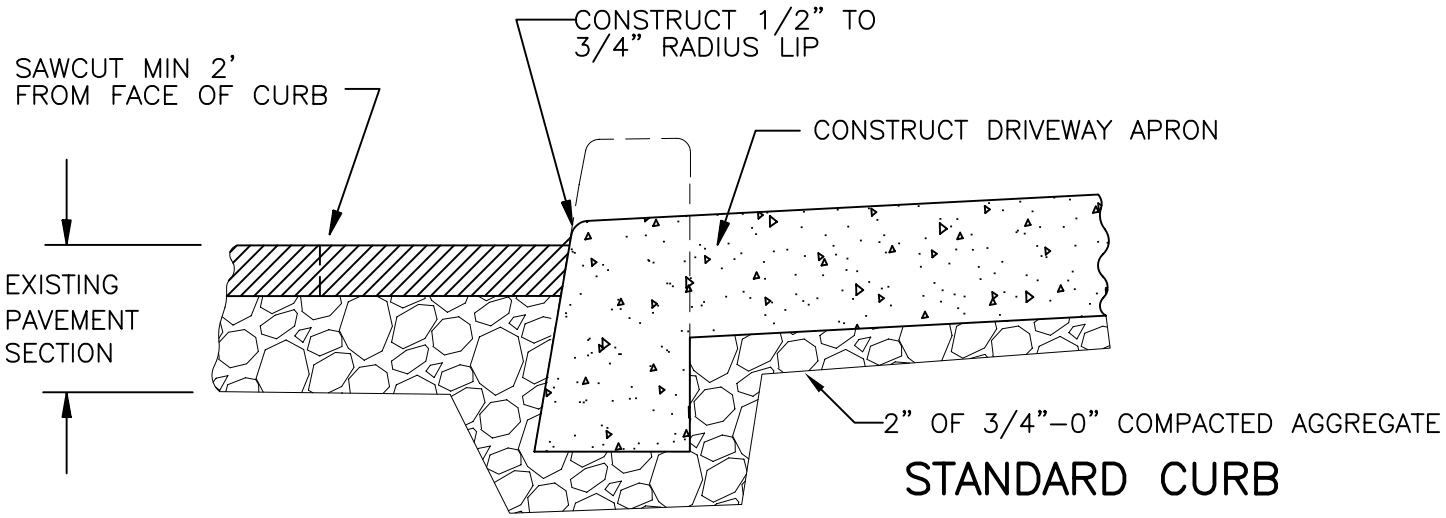
NOTES:

1. THIS DETAIL MAY BE USED WHEN PRIOR APPROVAL HAS BEEN OBTAINED FROM CITY ENGINEER.
2. CONCRETE COMPRESSIVE STRENGTH SHALL BE A MINUMUM OF 3000 PSI AFTER 28 DAYS.
3. CURB JOINT SHALL BE TROWELED WITH A MIN 1/2" RADIUS ALONG BACK OF CURB.
4. EXPANSION & CONTRACTION JOINTS SHALL BE 1'2" PREMOLDED ASPHALT IMPREGNATED MATERIAL OR EQUAL EXTENDING FROM SUBGRADE TO FINISH GRADE.
5. 6" X 6" 10 GA MESH REQUIRED FOR COMMERCIAL DRIVEWAYS ONLY.

CITY OF TIGARD OREGON ENGINEERING DEPARTMENT 13125 S.W. HALL BLVD. TIGARD, OREGON 97223 VOICE: (503) 639-4171 FAX: (503) 684-7297	APPROVED BY: AGUSTIN P. DUENAS CITY ENGINEER MARCH 1998 APPROVAL DATE	**MODIFIED DRIVEWAY**	NO SCALE DWG. NO. 143



CURB AND GUTTER



STANDARD CURB

NOTES:

1. SAWCUT THROUGH GUTTER PLATE SHALL BE MADE AS CLOSE TO CURB FACE AS POSSIBLE.
2. COMPLETE CURB AND GUTTER SHALL NOT BE REMOVED UNLESS DIRECTED BY THE ENGINEER.
3. WHEN STRAIGHT CURBS ARE REMOVED, A MINIMUM OF 2 FEET OF PAVEMENT FROM THE FACE OF CURB SHOULD BE REMOVED AND REPLACED.
4. WHEN ENTIRE GUTTER PLATE IS REMOVED THE EXISTING PAVEMENT SHALL BE CUT BACK AND A 6" MONOLITHIC CONCRETE BENCH SHALL BE CONSTRUCTED WITH THE NEW GUTTER TO PROVIDE SUPPORT UNDER PAVEMENT.
5. AFTER CONCRETE HAS CURED, SEAL JOINT.

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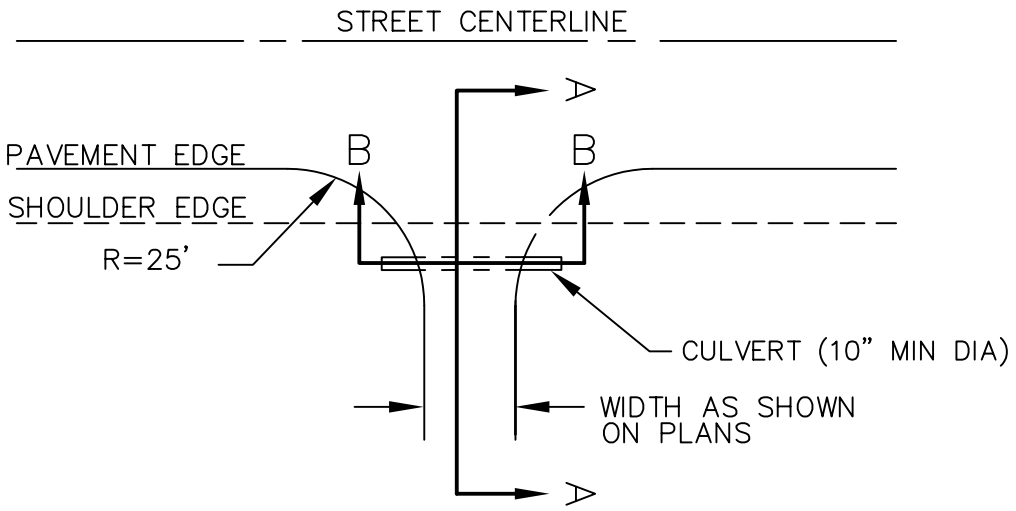
AGUSTIN P. DUENAS
CITY ENGINEER

MARCH 1998
APPROVAL DATE

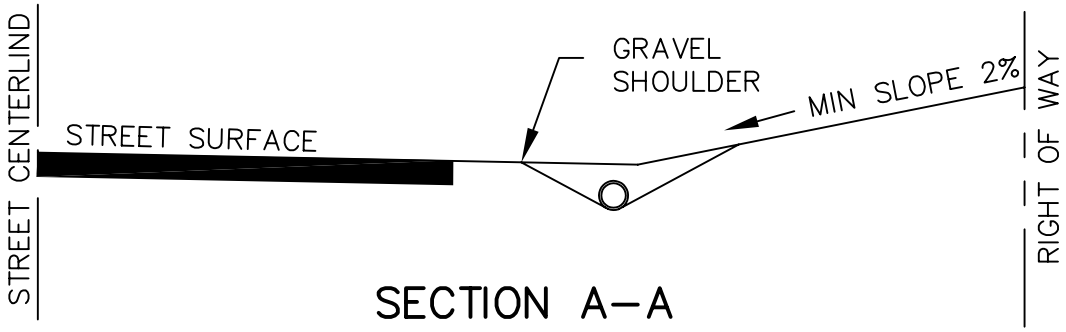
CURB KNOCKOUT FOR DRIVEWAYS

NO SCALE

DWG. NO.
145



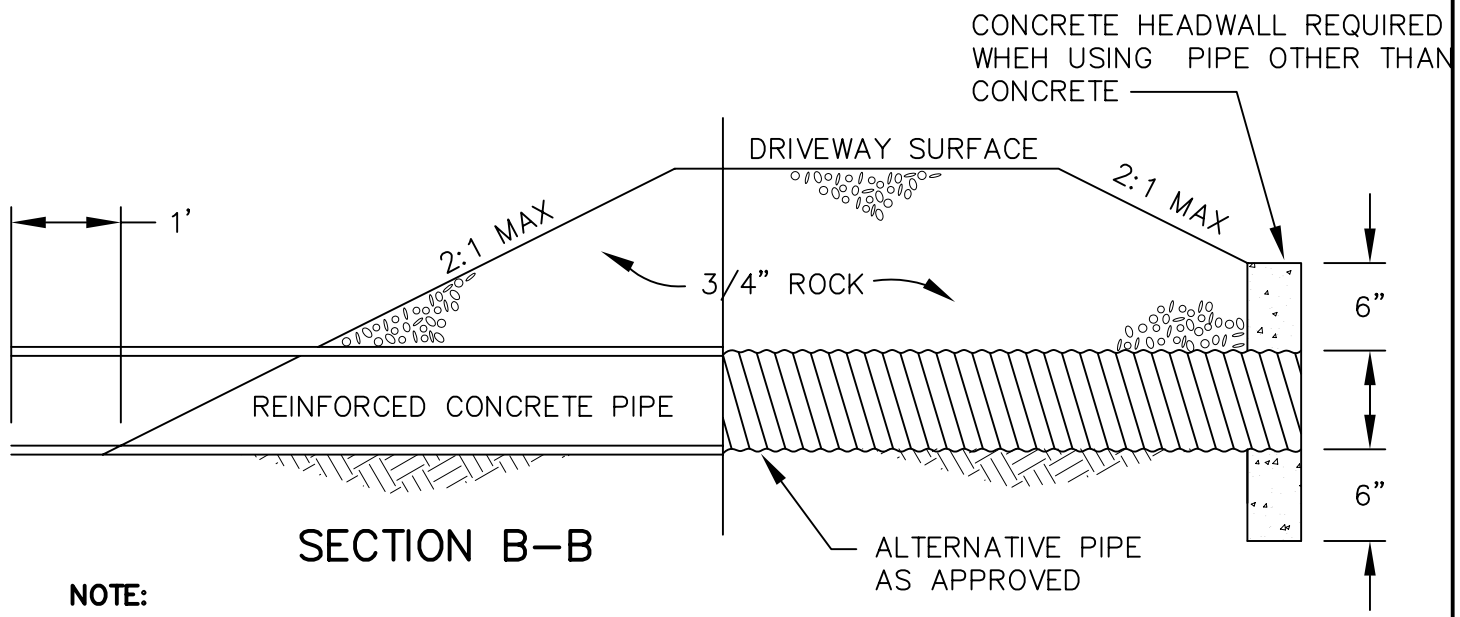
PLAN VIEW



SECTION A–A

NOTE:

IF A.C. DRIVEWAY IS TO BE CONSTRUCTED, USE 2" OF CLASS "C' MIX ON APPROVED BASE WITHIN PUBLIC RIGHT OF WAY.



SECTION B–B

NOTE:

PIPE SIZE TO BE DETERMINED BY CITY

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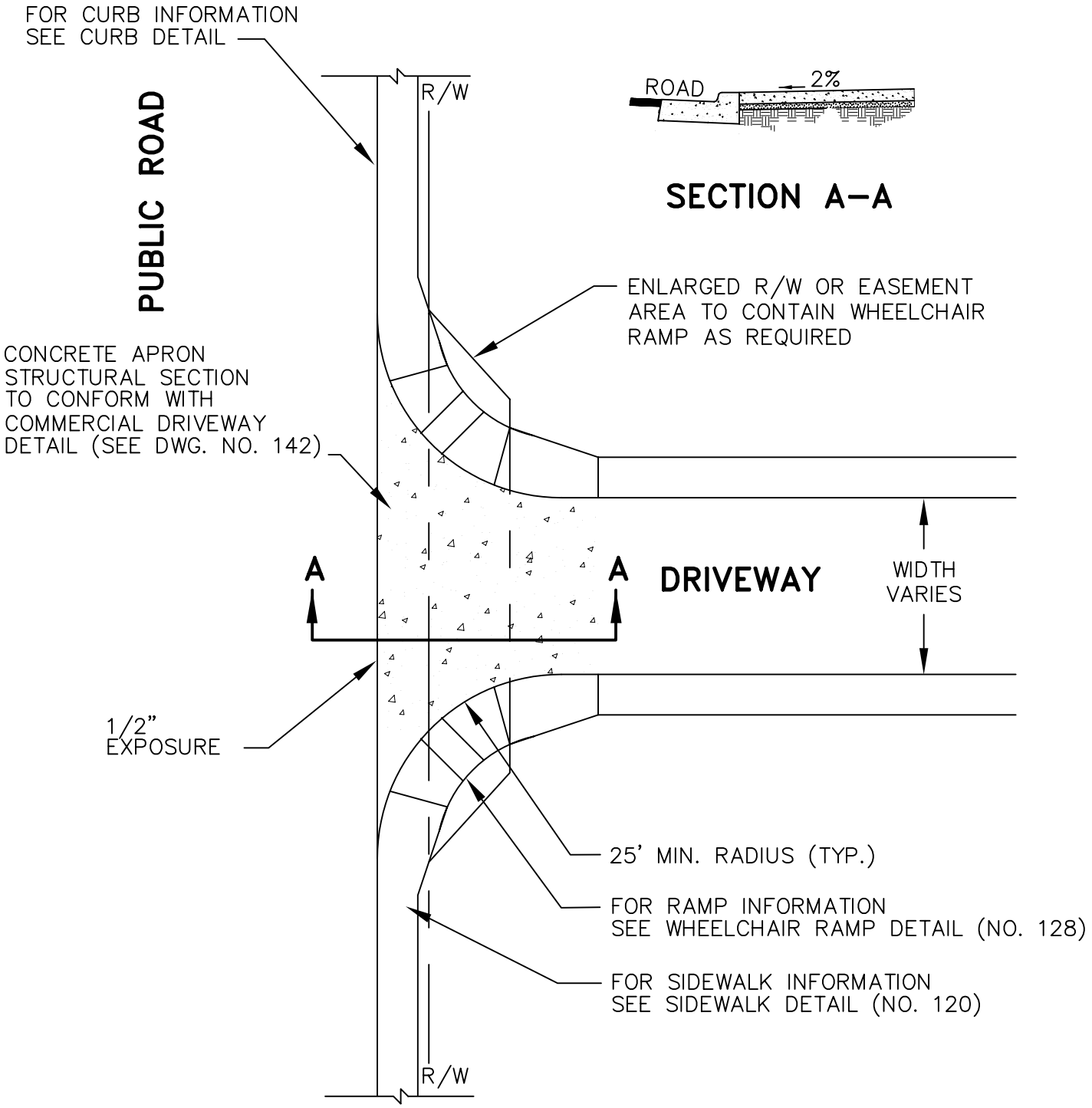

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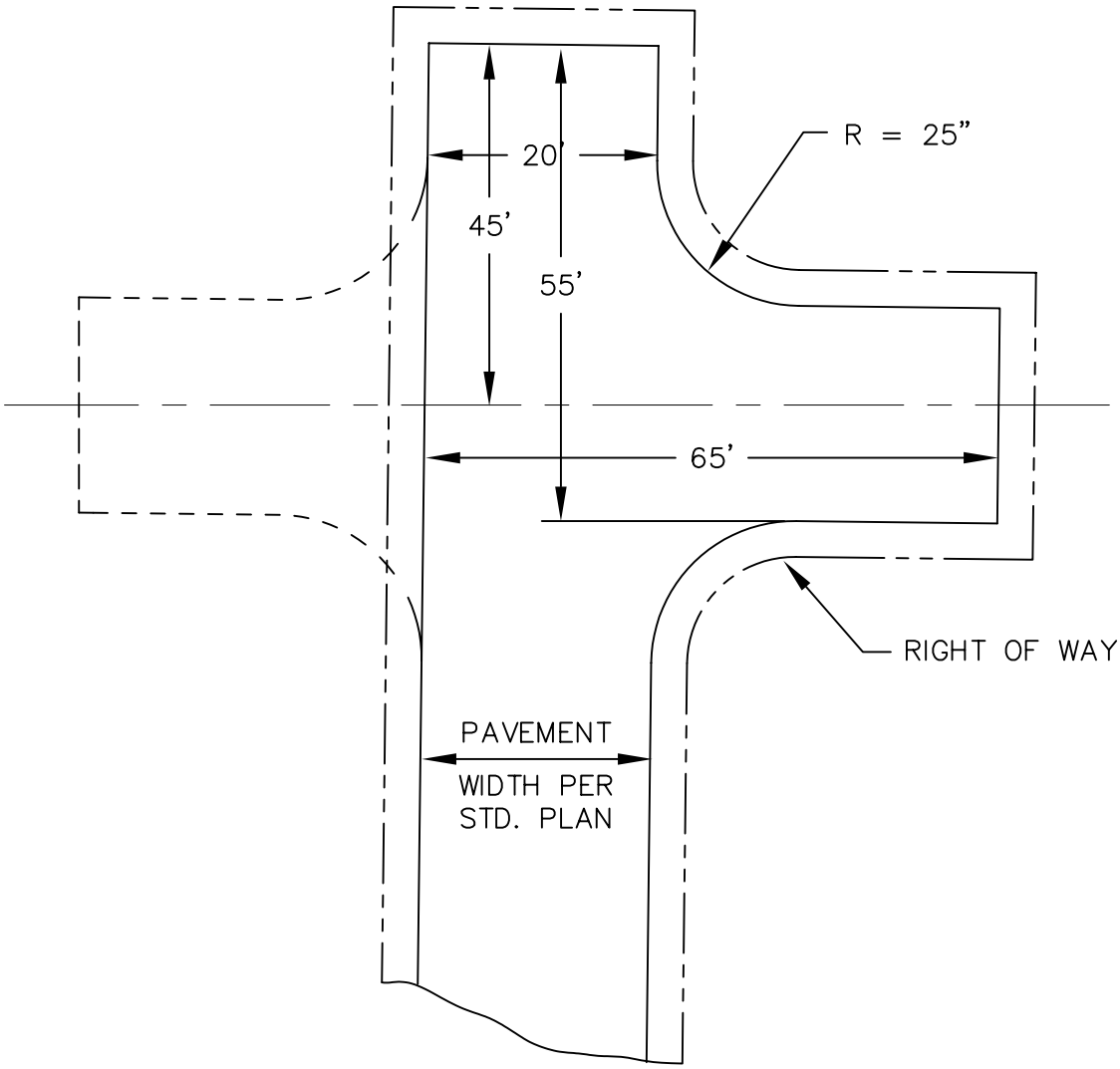
CITY ENGINEER

MARCH 1998
APPROVAL DATE

ALTERNATE COMMERCIAL DRIVEWAY

NO SCALE

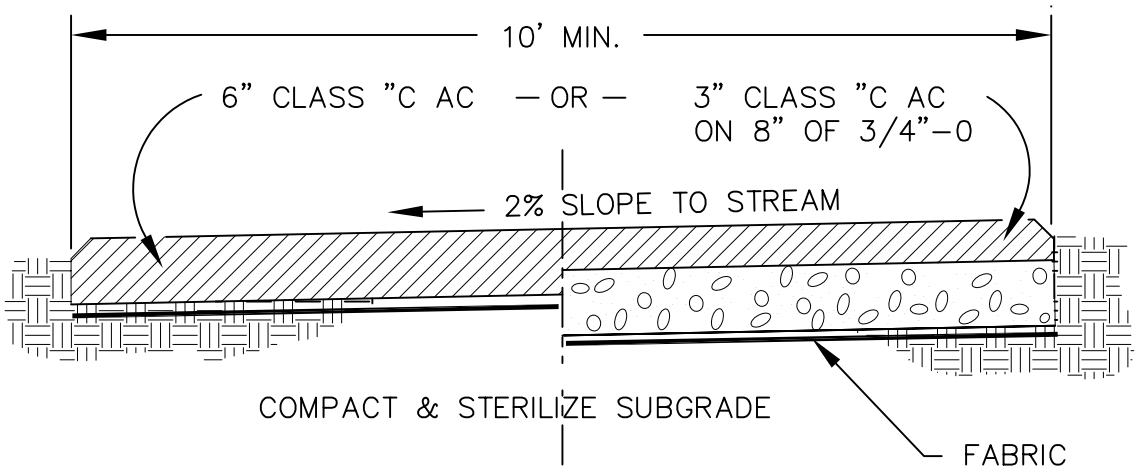
DWG. NO.
162



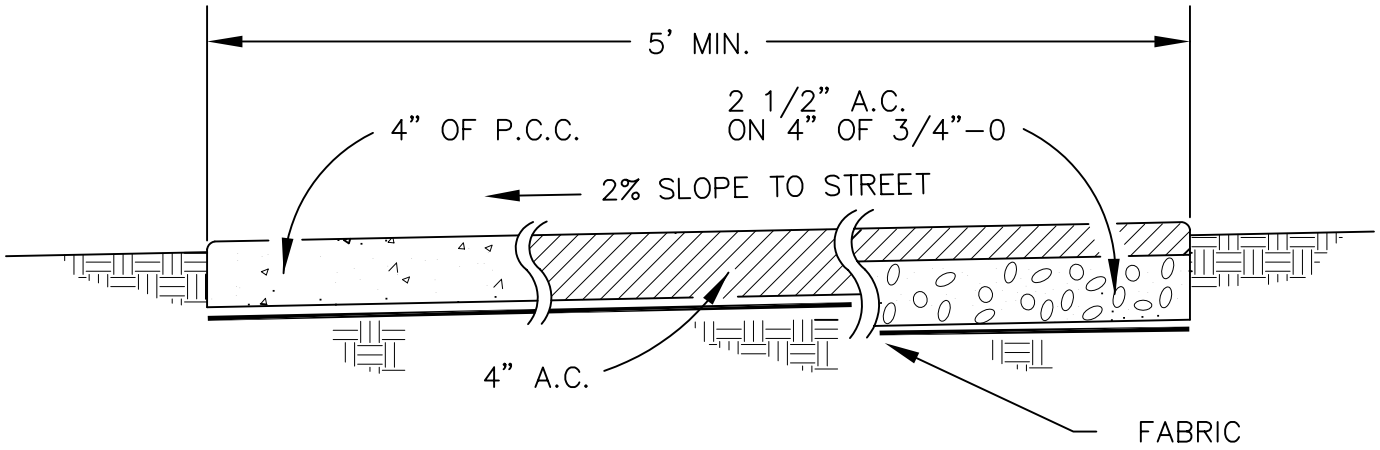
NOTE:

APPROPRIATE SIGNING SHALL BE
DETERMINED BY THE FIRE MARSHALL.

CITY OF TIGARD OREGON ENGINEERING DEPARTMENT 13125 S.W. HALL BLVD. TIGARD, OREGON 97223 VOICE: (503) 639-4171 FAX: (503) 684-7297	APPROVED BY: AGUSTIN P. DUENAS CITY ENGINEER MARCH 1998 APPROVAL DATE	**FIRE TRUCK TURNAROUND**	NO SCALE DWG. NO. 165



MAINTENANCE ACCESS



PEDESTRIAN PATH OR BIKEWAY

NOTES:

1. CONCRETE SHALL BE 3000 P.S.I. AT 28 DAYS, 6 SAC MIX, SLUMP RANGE OF 1 1/2"-3"
2. CONCRETE PANELS SHALL BE SQUARE, 3/4" DEEP SCRIBES AT JOINTS 5 FEET APART, EDGED ON 4 SIDES AND HAVE A LIGHT BROOM FINISH.
3. FABRIC TO BE A WOVEN GEOTEXTILE (AMOCO 2006) OR APPROVED EQUAL.
4. COMPACT AND STERILIZE SUBGRADE.

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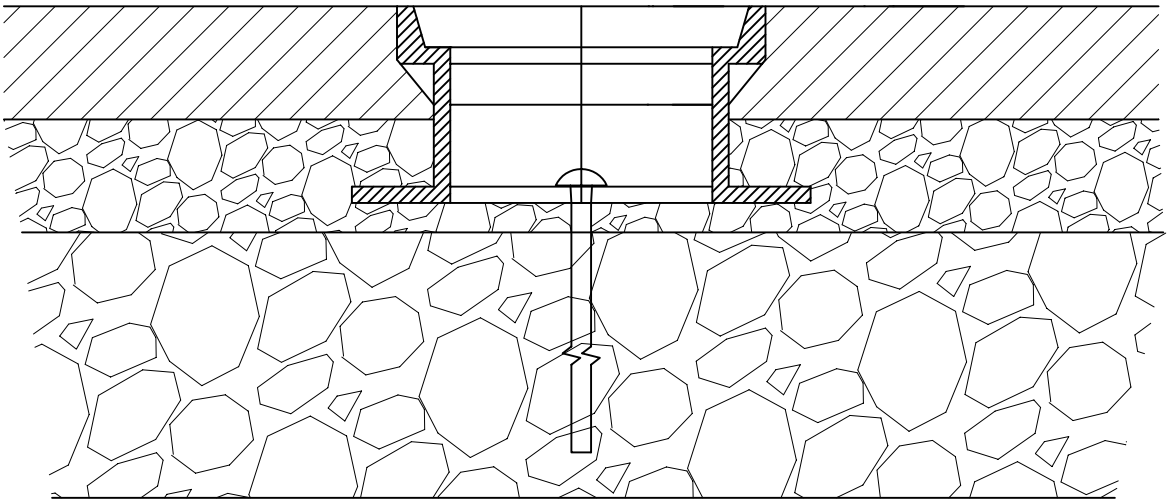

MONUMENT CASE & COVER

NOTES:

1. MONUMENT BOXES TO BE CAST IRON OR ALLOY SUITABLE FOR HEAVEY TRAFFIC LOADING #1036 OR 1033 SUPPLIED BY:

   INLAND FOUNDRY CO. INC.
   191 N. 39TH
   SPRINGFIELD, OR 97477
   (541) 747–9172

   OR

   NO. M 1010 AND SUPPLIED BY:

   OLYMPIC FOUNDARY
   SEATTLE, WASHINGTON

2. ALTERNATIVE TYPES MUST BE APPROVED BY THE CITY ENGINEERING DEPT. PRIOR TO INSTALLATION AND MUST CONFORM TO THE FOLLOWING MINIMUM DIMENSIONS:

3. APPROVED FOR ALL STREET CLASSIFICATIONS.

4. MONUMENT TO BE NO DEEPER THAN 6" BELOW FINISH GRADE.

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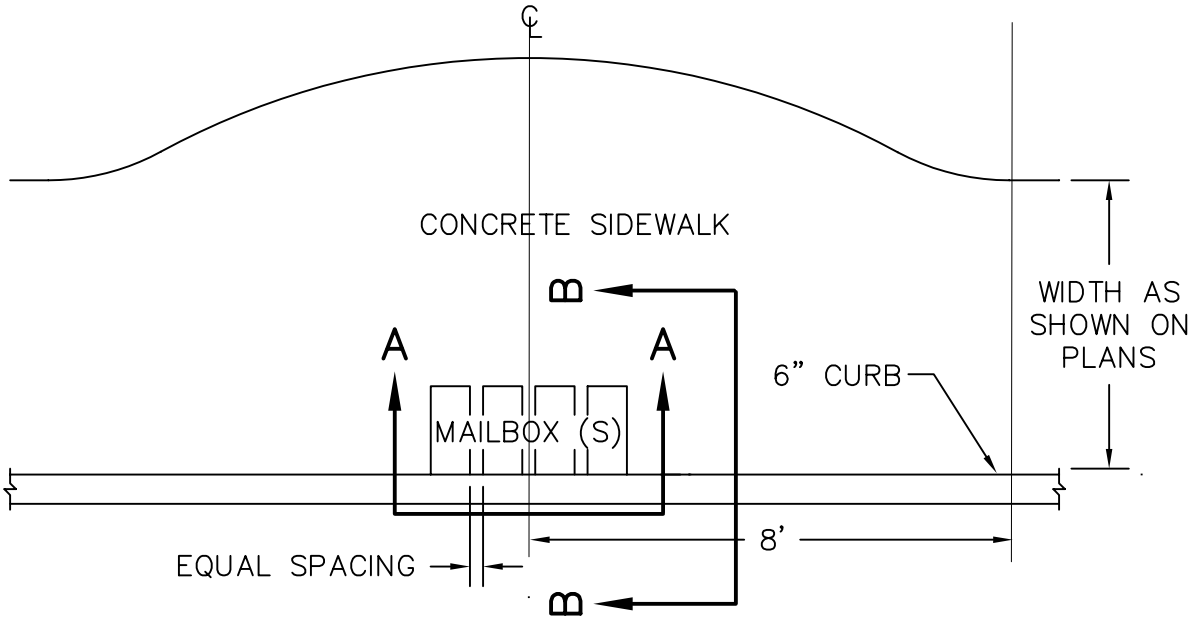
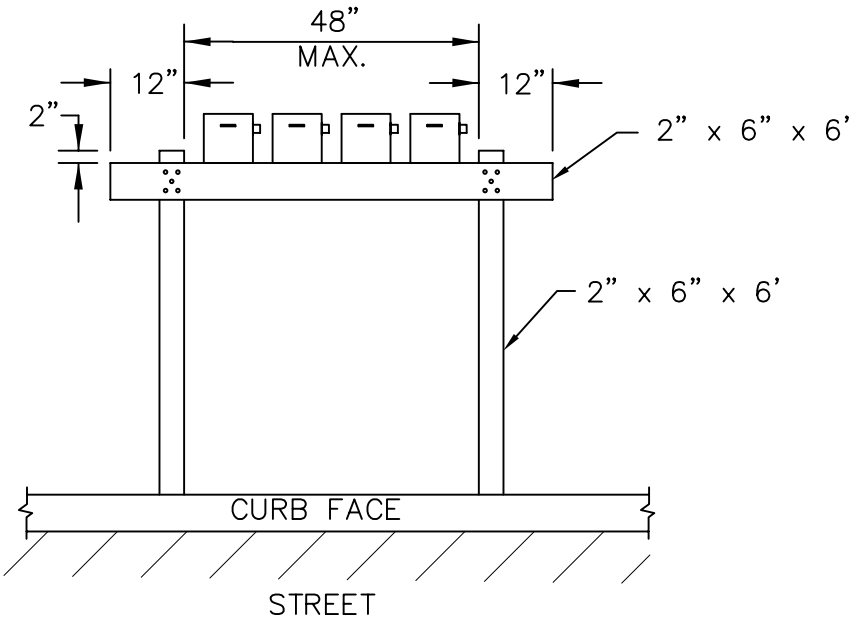
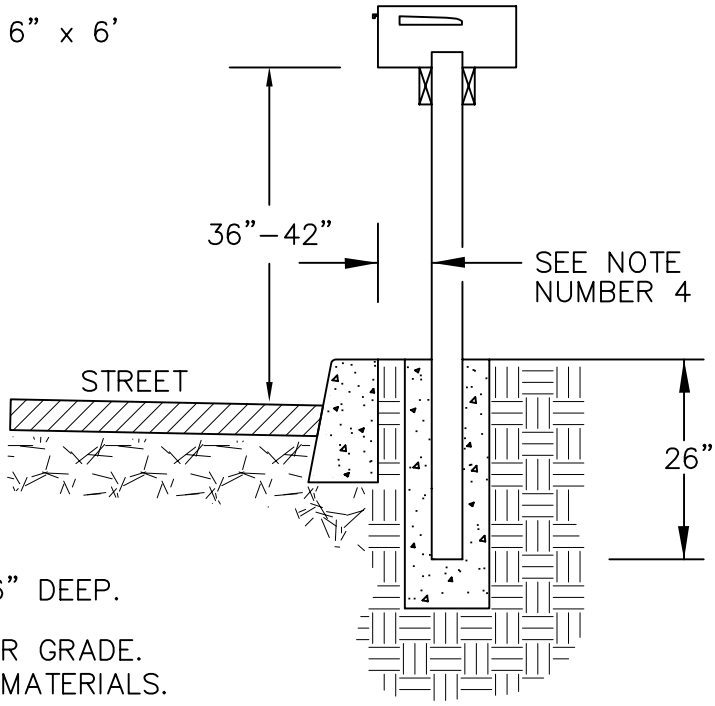


PLAN



SECTION A–A



SECTION B–B

NOTES:

1. POST SHALL BE SET IN CONCRETE ± 26" DEEP.
2. LUMBER IS TO BE STANDARD OR BETTER GRADE. UTILIZE CEDAR OR PRESSURE TREATED MATERIALS.
3. FACE OF BOX TO BE FLUSH WITH BACK OF CURB.
4. MAX. OF 4 MAILBOXES EVENLY SPACED IN EACH CLUSTER.
5. CURVE SHALL BE FIELD FIT & APPROVED BY CITY.

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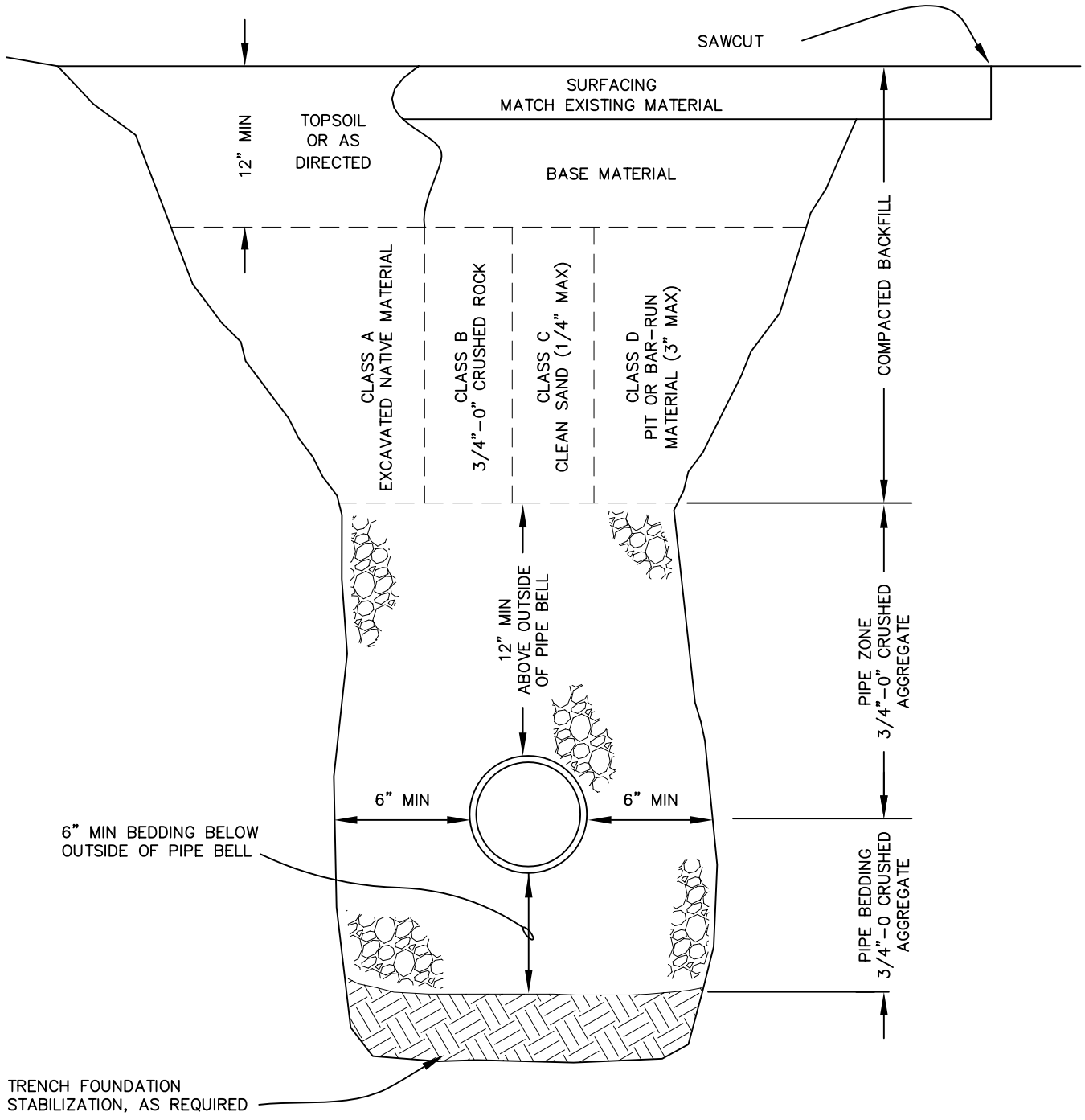
APPROVED BY:
AGUSTIN P. DUENAS
CITY ENGINEER

MARCH 1998
APPROVAL DATE

MAILBOX ALTERNATIVE

NO SCALE

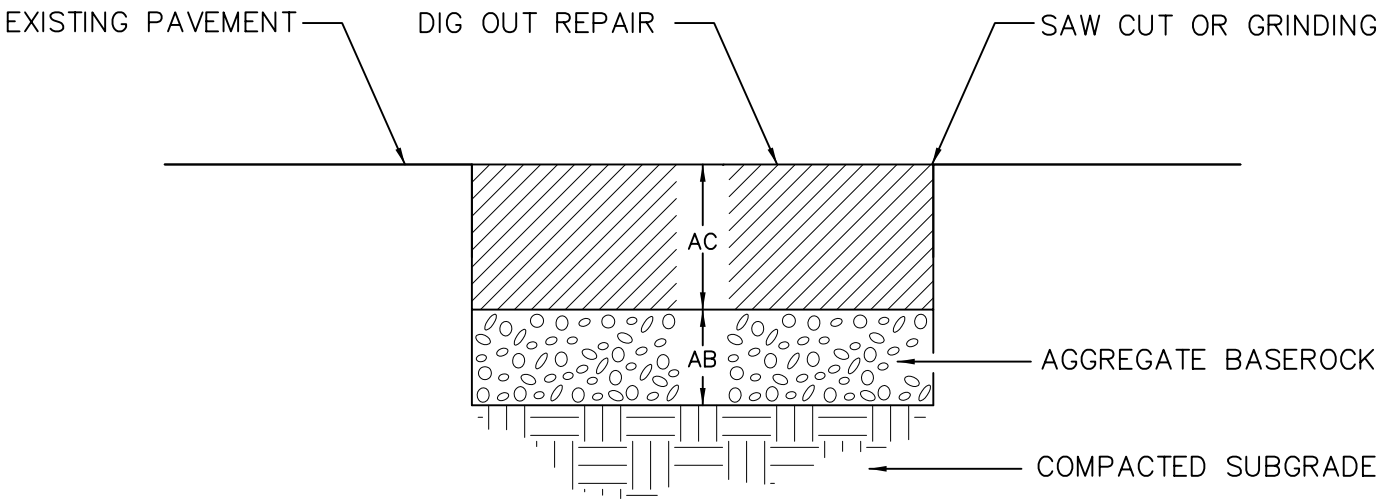
DWG. NO.
172



NOTE:

1. SURFACING OF PAVED AREAS SHALL COMPLY WITH STREET CUT STANDARD DRAWING.
2. JOINTS TO BE TACK AND SANDED.
3. SAWCUT SHALL BE TACK COATED WITH BITUMINUS ASPHALT EMULSION.

CITY OF TIGARD OREGON ENGINEERING DEPARTMENT 13125 S.W. HALL BLVD. TIGARD, OREGON 97223 VOICE: (503) 639-4171 FAX: (503) 684-7297	APPROVED BY: AGUSTIN P. DUENAS CITY ENGINEER MARCH 1998 APPROVAL DATE	**TRENCH BACKFILL**	NO SCALE DWG. NO. 180



LOCAL STREETS:

AC – 6" CLASS "C" ASPHALTIC CONCRETE,
AB – 4" (1–1/2" – 0") AGGREGATE BASEROCK

OR

AC – 8" CLASS "C" ASPHALTIC CONCRETE

MINOR COLLECTOR STREETS:

AC – 7" ASPHALTIC CONCRETE,
AB – 4" (1–1/2" – 0") AGGREGATE BASEROCK

OR

AC – 9" CLASS "C" ASPHALTIC CONCRETE

MAJOR COLLECTOR STREETS:

AC – 9" CLASS "C" ASPHALTIC CONCRETE,
AB – 4" (1–1/2" – 0") AGGREGATE BASEROCK

NOTES:

1. JOINTS TO BE TACK AND SANDED.
2. ASPHALT PLACED IN MAX. 3' LIFTS EACH COMPACTED TO 92% MIN.
3. SAWCUT SHALL BE TAC COATED WITH BITUMINUS ASPHALT EMULSION.

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OREGON

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APPROVED BY:
AGUSTIN P. DUENAS
CITY ENGINEER

MARCH 1998
APPROVAL DATE

PAVEMENT DIG–OUT AND REPAIR

NO SCALE

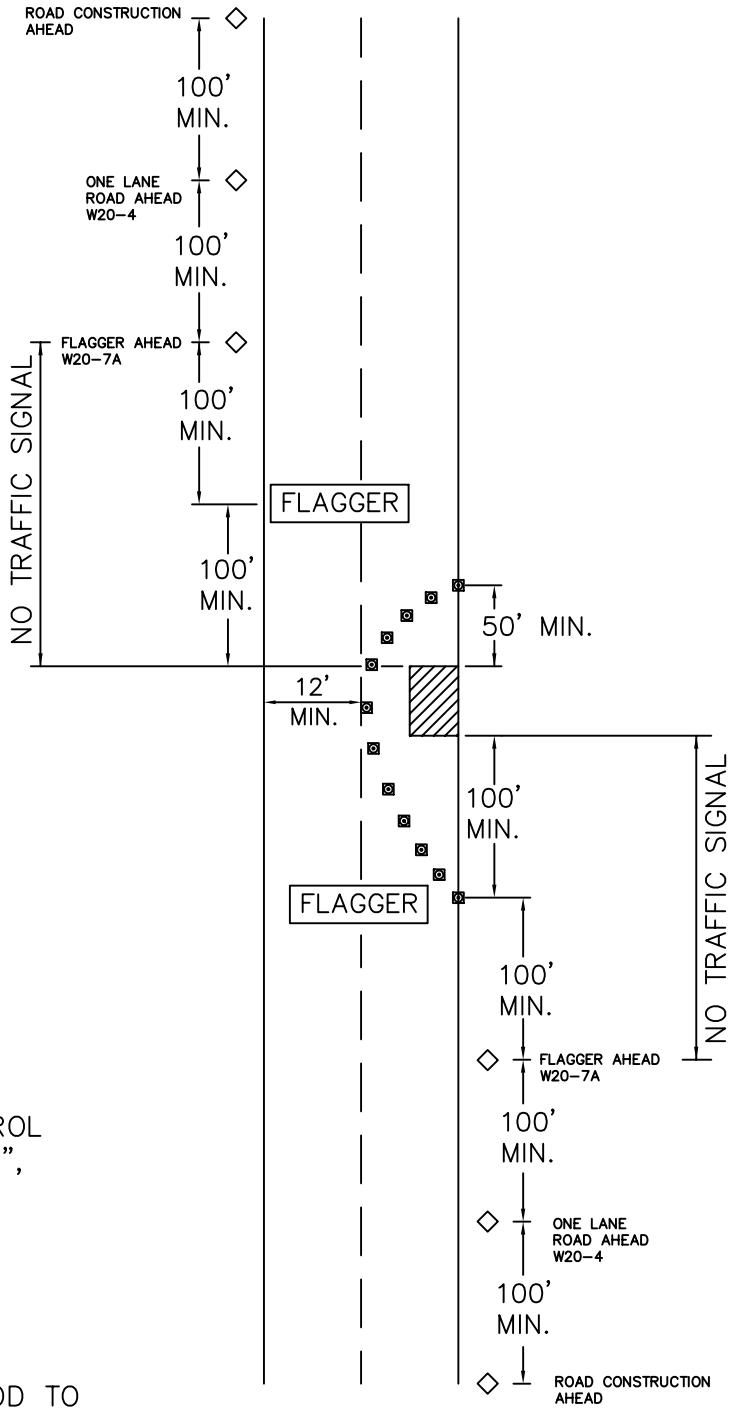
DWG. NO.
182

LEGEND

◇ TRAFFIC SIGN

▨ CONSTRUCTION ZONE

⊡ TRAFFIC CONES OR APPROPRIATE DELINEATION DEVICE.



1. TRAFFIC CONTROL PLANS REQUIRED.
2. TRAFFIC SIGNS TO BE 48" X 48" BLACK ON ORANGE.
3. NO COLLECTOR STREET LANE OR LOCAL STREET CLOSURES DURING THE FOLLOWING TIME PERIODS:

   7:00 – 9:00 A.M.
   3:30 – 6:00 P.M.

4. INSTALL IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", U.S. DEPT. OF TRANSPORTATION, FHUA, 1988 EDITION.
5. ACTUAL SIGN PLACEMENT TO BE ADJUSTED IN FIELD.
6. THE CITY RESERVES THE RIGHT TO ADD TO OR MODIFY TRAFFIC CONTROL REQUIREMENTS AS MAY BE NECESSARY TO EFFECTIVELY CONTROL TRAFFIC AND TO ENSURE PUBLIC SAFETY.
7. NO LANE CLOSURES WITHIN 200 FEET OF A TRAFFIC SIGNAL WITHOUT PRIOR CITY APPROVAL.

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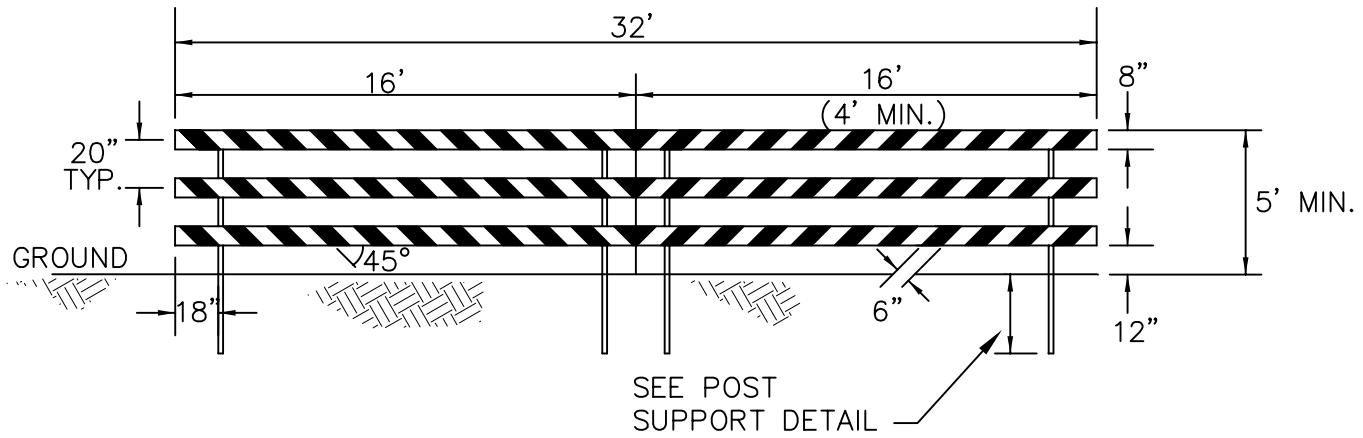
CITY ENGINEER

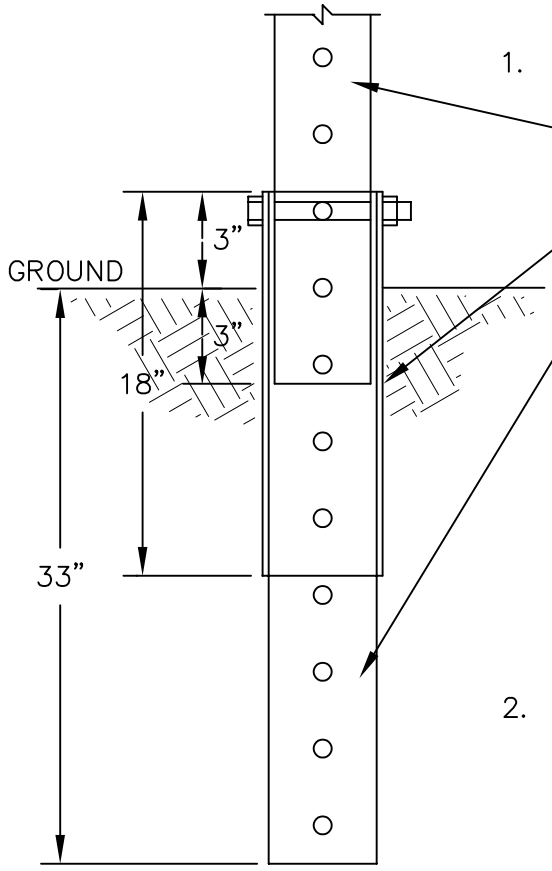
MARCH 1998
APPROVAL DATE

TYPICAL TRAFFIC CONTROL PLAN

NO SCALE

DWG. NO.
190





POST SUPPORT DETAIL

1. MATERIALS:

   2" X 2" X 63", 12 GA. GALV. PERFORATED STEEL POST.

   2 1/2" X 2 1/2" X 18", 12 GA. GALV. PERFORATED STEEL STIFFNER POST.

   2 1/4" X 2 1/4" X 36", 12 GA. GALV. PERFORATED STEEL ANCHOR.

   3/8" X 3 1/2", GALVANIZED HEX HEAD BOLT WITH LOCK WASHER, OR 5/16" CORNER BOLT.

   7/16" X 5", GALVANIZED CARRIAGE WITH FLAT AND LOCK WASHER, 2 BOLTS PER RAIL PER POST.

   2" X 8" CROSSRAILS–PAINTED WITH REFLECTORIZED RED AND WHITE PAINT.

2. SEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND THE OREGON SUPPLEMENT.

   3F–1 BARRICADES
   6C–8 BARRICADE DESIGN
   6C–9 BARRICADE APPLICATION

3. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT STATE OF OREGON STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION

4. BARRICADE FOR SIDEWALK IS SIMILAR.

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